

MAR 31 2010

Application No. 10/500,838

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Docket No.: 56792(71699)

**AMENDMENTS TO THE CLAIMS**

Claims 1-2. (cancelled)

Claim 3. (Previously Presented) A method for detection and diagnosis of ovarian cancer comprising:

measuring at least one protein biomarker in a subject sample, wherein the protein markers are selected from:

Marker I: having a molecular weight of about 8.6 kD  
Marker II: having a molecular weight of about 9.2 kD  
Marker III: having a molecular weight of about 19.8 kD  
Marker IV: having a molecular weight of about 39.8 kD  
Marker V: having a molecular weight of about 54 kD  
Marker VII: having a molecular weight of about 79 kD

and;

correlating the measurement of one or more protein biomarkers with a diagnosis of ovarian cancer, wherein an increase in the levels of one or more of Markers II and III, or a decrease in the levels of one or more of Markers I, IV, V or VII is indicative that the subject has ovarian cancer.

Claim 4. (original) The method of claim 3 wherein one or more protein biomarkers are used to diagnose ovarian cancer.

Claim 5. (Previously Presented) The method of claim 3 wherein a plurality of the biomarkers are detected.

Claims 6-8. (cancelled)

Claim 9. (Previously Presented) The method of claim 3 wherein a single biomarker is used in combination with one or more additional cancer biomarkers for diagnosing cancer.

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**Claim 10. (Previously Presented)** The method of claim 3 wherein a plurality of the markers are used in combination with one or more additional cancer markers for diagnosing cancer.

**Claim 11. (Previously Presented)** The method of claim 9 or 10 wherein the additional cancer markers are ovarian cancer markers for diagnosing ovarian cancer.

**Claim 12. (Previously Presented)** The method of 11 wherein the additional ovarian cancer marker is CA 125.

**Claims 13-33. (cancelled)**

**Claim 34. (Previously Presented)** The method of claim 3 wherein one or more of the markers are detected using laser desorption/ionization mass spectrometry, comprising:

providing a probe adapted for use with a mass spectrometer comprising an adsorbent attached thereto;

contacting the subject sample with the adsorbent, and;

desorbing and ionizing the marker or markers from the probe and detecting the deionized/ionized markers with the mass spectrometer.

**Claims 35-38. (cancelled)**

**Claim 39. (Previously Presented)** The method of claim 3 wherein at least one or more protein biomarkers are detected using immunoassays.

**Claim 40. (original)** A process for purification of a biomarker, comprising fractionating a sample comprising one or more protein biomarkers by size-exclusion chromatography and collecting a fraction that includes the one or more biomarker; and/or fractionating a sample comprising the one or more biomarkers by anion

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exchange chromatography and collecting a fraction that includes the one or more biomarkers.

Claims 41-61. (cancelled)

Claim 62. (Previously Presented) The method of claim 3 wherein the stage of ovarian cancer is assessed.

Claims 63-84. (cancelled)

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